

Exhibit 4

Blue Spike – Monitoring and Analyzing Signals – U.S. Patent 7,949,494

Preliminary Infringement Claim Chart

Claim	Audible Magic Content Recognition Technology, including its SmartID, CopySense Appliance, CopySense Custom, CopySense Premier, Live TViD, Music-Speech iD, SmartSync, and RepliCheck products and solutions
<p>1. A system for identifying at least one reference signal comprising:</p>	<p>Audible Magic’s content recognition technology (“AM’s CRT”)—found, on information and belief, in its SmartID, CopySense Appliance, CopySense Custom, CopySense Premier, Live TViD, Music-Speech iD, SmartSync, and RepliCheck products and solutions—is a software- and computer-based solution (“system”) for monitoring, identifying, and measuring (“identifying”) audio and video content (“at least one reference signal”).</p> <p>About Audible Magic</p> <p>Our mission is to deliver the most trusted and accurate <u>content identification technology</u> and solution services on the market.</p> <p>As the industry pioneer, Audible Magic is recognized as the de facto leader in monetizing, protecting, measuring, and verifying content — in all their forms, including radio and television broadcasts, Internet and satellite streams, stored digital files, consumer devices and via network file transfers.</p> <p>Innovative and massively scalable, Audible Magic’s patented "fingerprinting" technology accurately tracks and monitors the detection of copyrighted material or any other audio or video-based content. Coupled with our unique and dynamic database of more than 11 million digital fingerprints, Audible Magic's CopySense® products and technology provide copyright-sensitive identification that weeds out the noise and yields highly accurate tracking of your copyrighted content.</p> <p>Our technology has paved the way for a wide - and growing - range of solutions in media identification and ad detection, compliance, monetization and management, anti-piracy, content registration, and litigation support. And each year, more customers recognize Audible Magic as a brand they can trust.</p> <p>See Exhibit 1, Audible Magic’s “About” webpage, http://audiblemagic.com/company.php (emphasis added).</p>

User Generated Content Services

Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.

Turn to Audible Magic's turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by **content identification technology**. Add our metadata to enhance the user experience.

See Exhibit 2, Audible Magic's "Copyright Compliance" webpage, <http://audiblemagic.com/solutions-maincompliance.php> (emphasis added).

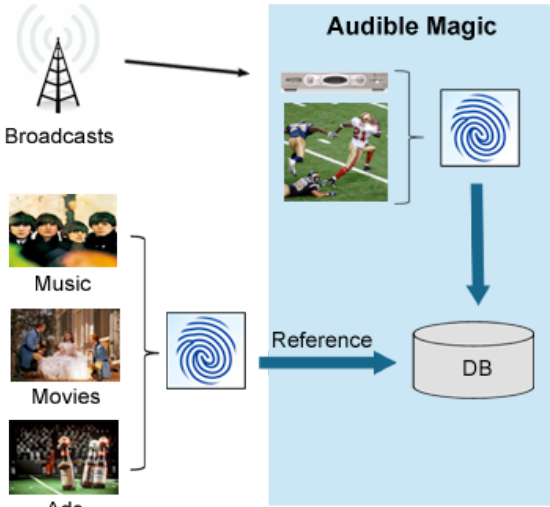
Broadcast Monitoring

Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic's Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.

The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property

See Exhibit 3, Audible Magic's "Broadcast Monitoring" webpage, <http://audiblemagic.com/solutions-broadcast.php>

	(emphasis added).
a first input that receives at least one reference signal to be identified;	<p>AM's CRT includes an input (it is obvious to anyone skilled in the art that an input must be used to receive content, "a first input") that receives content ("at least one reference signal") to be identified.</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic's turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by content identification technology. Add our metadata to enhance the user experience.</p> <p>See Exhibit 2, Audible Magic's "Copyright Compliance" webpage, http://audiblemagic.com/solutions-maincompliance.php (emphasis added).</p>
a first processor that creates an abstract of each reference signal input to said first processor through said first input wherein the abstract comprises signal characteristic parameters configured to differentiate between versions of said reference signal;	<p>AM's CRT includes a processor (it is obvious to anyone skilled in the art that a processor is used to execute the technology's algorithms, "a first processor") that generates a fingerprint ("creates an abstract") from each piece of content ("reference signal") input to it. The fingerprint comprises "perceptual characteristics" ("signal characteristic parameters") that accurately identify the content (are "configured to differentiate between versions of said reference signal").</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to</p>

	<p><u>accurately identify content across file formats, codecs, bitrates, and compression techniques.</u> This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic’s “Technology Overview” webpage, http://audiblemagic.com/technology.php (emphasis added).</p>  <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>at least one reference database for storing at least one abstract;</p>	<p>AM’s CRT includes a database called the Global Rights Registry (“reference database”) for storing the fingerprint of the content (“abstract”).</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic’s turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master</p>

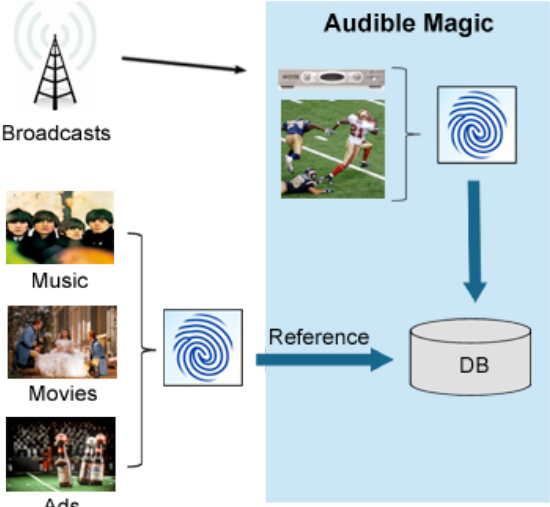
recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. **This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content.** Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by **content identification technology**. Add our metadata to enhance the user experience.

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The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to **a reference database of fingerprints** to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property.

	 <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a receiver that receives at least one query signal;</p>	<p>AM’s CRT includes a receiver that receives unknown content (“at least one query signal”) to be identified.</p> <p>Broadcast Monitoring</p> <p><u>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic’s Automated Content Recognition (ACR) technology.</u> This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p> <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>

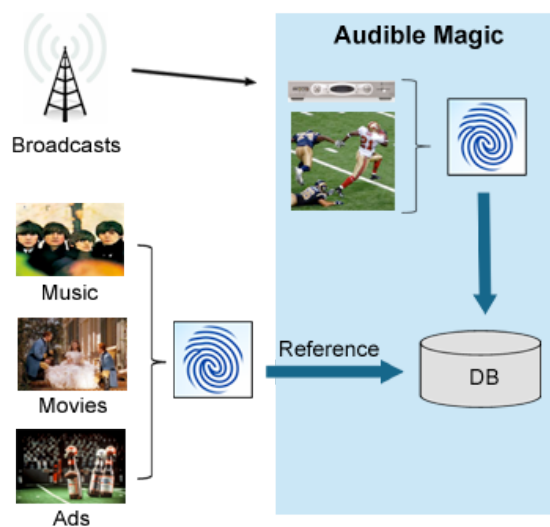
a second processor that creates an abstract of said query signal received by said receiver, based on the parameters; and

AM's CRT includes a processor (it is obvious to anyone skilled in the art that a processor is used to execute the technology's algorithms, "a second processor") that generates a fingerprint ("creates an abstract") from the unknown content ("query signal") based on the parameters used to create the fingerprint of the monitored content.

Robust SmartID and CopySense Technology

Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.

See Exhibit 4, Audible Magic's "Technology Overview" webpage, <http://audiblemagic.com/technology.php> (emphasis added).



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a comparing device that compares the created query signal abstract to the reference signal abstracts in the at least one database, each abstract in the at least one reference database corresponding to a version of a reference signal, to determine whether the query signal abstract matches any of the stored at least one abstract in the at least one reference database.

AM's CRT includes a server or other computer ("a comparing device") that compares the fingerprint created from the unknown content ("created query signal abstract") to the fingerprints in the reference database ("the reference signal abstracts in the at least one database") each abstract in the at least one reference database corresponding to a version of a reference signal, to determine whether the query signal abstract matches any of the stored at least one abstract in the at least one reference database.

Broadcast Monitoring

Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic's Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.

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Robust SmartID and CopySense Technology

Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.

See Exhibit 4, Audible Magic's "Technology Overview" webpage, <http://audiblemagic.com/technology.php> (emphasis added).

<p>2. The system of claim 1, further comprising: a controller that enables authorized transmission or use of the corresponding version of the reference signal based on whether a match was determined by the comparing device.</p>	<p>As established above, the AM's CRT infringes Claim 1, and further comprises a controller that enables authorized transmission or use of the corresponding version of the reference signal based on whether a match was determined by the comparing device. To wit, if there is a match, the system can display a coupon or other item related to the identified content on a TV, or send a coupon to the user's smartphone.</p> <p style="text-align: center;">Example of CR Using Cloud Based Fingerprinting with Smart TV and LAN Connection</p> <p>In the example pictured below, an agency has created a digital fingerprint for their specific TV commercial.</p> <ul style="list-style-type: none"> • When the fingerprint of the content playing on the screen is detected, a pop-up overlay dialog box is triggered on top of the advertisement asking the viewer if they want to take advantage of the coupon being offered on screen. • By pressing their TV remote select button the viewer confirms they would like the coupon offered. • Using the LAN connection, a coupon request is sent via the internet to the retail web site. • The requested coupon is sent by the retailer to the viewer's smart phone. <p>See Exhibit 5, Audible Magic white paper entitled "Digital Fingerprinting & Video Content Recognition: Enabling New Forms of Interactive Advertising" (emphasis added).</p>
<p>3. The system of claim 1, wherein the reference database is created by at least one of a music company, a movie studio, an image archive, an owner of a general computing device, a user of the reference signal, an interne [sic] service provider, an information technology company, a body politic, a telecommunications company and combinations thereof.</p>	<p>As established above, AM's CRT infringes Claim 18, and the Global Rights Registry ("reference database") is created by Audible Magic, which is an information technology company, or at least an owner of a general computing device.</p> <p style="text-align: center;">User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic's turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible</p>

	<p>Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by content identification technology. Add our metadata to enhance the user experience.</p> <p>See Exhibit 2, Audible Magic's "Copyright Compliance" webpage, http://audiblemagic.com/solutions-maincompliance.php (emphasis added).</p>
<p>4. The system of claim 1, wherein the reference signals comprise at least one of images, audio, video, and combinations thereof.</p>	<p>As established above, AM's CRT infringes Claim 18, and the data signals it monitors are audio and video.</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic's turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by content identification technology. Add our metadata to enhance the user experience.</p> <p>See Exhibit 2, Audible Magic's "Copyright Compliance" webpage, http://audiblemagic.com/solutions-maincompliance.php (emphasis added).</p>
<p>5. The system of claim 1, wherein the stored abstracts are derived from one of a cognitive feature or a perceptible characteristic of the associated reference signals.</p>	<p>As established above, AM's CRT infringes Claim 1, and the stored reference signal abstracts are derived from "perceptible characteristics" of the associated content ("reference signals").</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to</p>

	<p>accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
<p>6. The system of claim 1, furthering [<i>sic</i>] comprising a security controller to apply a cryptographic protocol to at least one created abstract, at least one database abstract or both at least one created abstract and at least one database abstract.</p>	<p>As established above, AM's CRT infringes Claim 1, and, on information and belief, applies a cryptographic protocol to the reference signal abstracts and/or query signal abstracts. Further discovery will be needed to chart the infringing instrumentality.</p>
<p>7. The system of claim 1, wherein each of the stored abstracts comprise information configured to differentiate variations of each referenced corresponding signal.</p>	<p>As established above, AM's CRT infringes Claim 1, and the stored abstracts comprise information configured to differentiate variations of each referenced corresponding signal.</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "<u>digital fingerprint-based</u>" technology to accurately identify content using audio signals. Identification is based on the <u>perceptual characteristics</u> of the audio itself which allows it to <u>accurately identify content across file formats, codecs, bitrates, and compression techniques</u>. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
<p>8. The system of claim 1, further comprising a storage medium for storing information associated with the comparing</p>	<p>As established above, AM's CRT infringes Claim 1, and, on information and belief, further comprises a storage medium for storing information associated with the comparing device to store information to enable at least one of a re-calibration of the database and a heuristic-based adjustment of the database. Further discovery will be needed to chart</p>

device to store information to enable at least one of a re-calibration of the database and a heuristic-based adjustment of the database.	the infringing instrumentality.
9. The system of claim 1, further comprising a storage medium for storing information associated with the comparing device to store information to enable a computational efficiency adjustment of the database, an adjustment for database collisions and/or null cases, a change to the recognition or use parameters governing the database and combinations thereof.	As established above, AM's CRT infringes Claim 1, and, on information and belief, further comprises a storage medium for storing information associated with the comparing device to store information to enable a computational efficiency adjustment of the database, an adjustment for database collisions and/or null cases, a change to the recognition or use parameters governing the database and combinations thereof. Further discovery will be needed to chart the infringing instrumentality.
10. The system of claim 1, further comprising applying one of a relatedness index or measure of similarity to generate uniquely identifiable information to determine authorization by the comparing device.	As established above, AM's CRT infringes Claim 1, and, on information and belief, further comprises applying one of a relatedness index or measure of similarity to generate uniquely identifiable information to determine authorization by the comparing device. Further discovery will be needed to chart the infringing instrumentality.
11. A system for analyzing and identifying at least one reference signal, comprising:	Audible Magic's content recognition technology ("AM's CRT")—found, on information and belief, in its SmartID, CopySense Appliance, CopySense Custom, CopySense Premier, Live TViD, Music-Speech iD, SmartSync, and RepliCheck products and solutions—is a software- and computer-based solution ("system") for monitoring, identifying, and measuring ("analyzing and identifying") audio and video content ("at least one reference signal").

About Audible Magic

Our mission is to deliver the most trusted and accurate content identification technology and solution services on the market.

As the industry pioneer, **Audible Magic is recognized as the de facto leader in monetizing, protecting, measuring, and verifying content** — in all their forms, including radio and television broadcasts, Internet and satellite streams, stored digital files, consumer devices and via network file transfers.

Innovative and massively scalable, **Audible Magic's patented "fingerprinting" technology accurately tracks and monitors the detection of copyrighted material or any other audio or video-based content.** Coupled with our unique and dynamic database of more than 11 million digital fingerprints, Audible Magic's CopySense® products and technology provide copyright-sensitive identification that weeds out the noise and yields highly accurate tracking of your copyrighted content.

Our technology has paved the way for a wide - and growing - range of solutions in media identification and ad detection, compliance, monetization and management, anti-piracy, content registration, and litigation support. And each year, more customers recognize Audible Magic as a brand they can trust.

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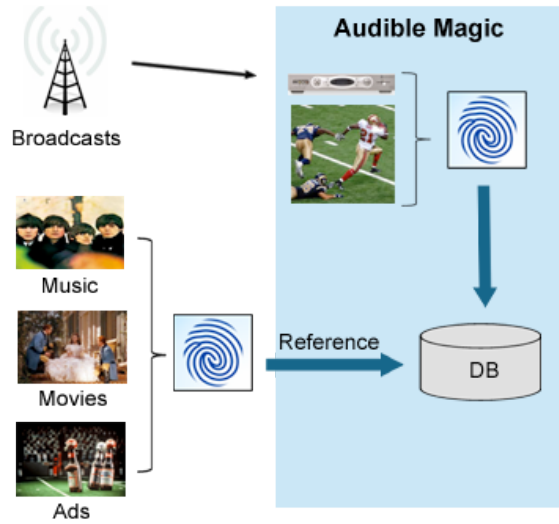
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	<p>other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by content identification technology. Add our metadata to enhance the user experience.</p> <p>See Exhibit 2, Audible Magic’s “Copyright Compliance” webpage, http://audiblemagic.com/solutions-maincompliance.php (emphasis added).</p> <p>Broadcast Monitoring</p> <p><u>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic’s Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</u></p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p> <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a first input for receiving at least one reference signal to be identified,</p>	<p>AM’s CRT includes an input (it is obvious to anyone skilled in the art that an input must be used to receive content, “a first input”) that receives content (“at least one reference signal”) to be identified.</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic’s turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is</p>

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a first processor for creating an abstract of each reference signal received based on perceptual characteristics representative of parameters to differentiate between versions of the reference signal;	<p>AM's CRT includes a processor (it is obvious to anyone skilled in the art that a processor is used to execute the technology's algorithms, "a first processor") that generates a fingerprint ("creates an abstract") from each piece of content ("reference signal") input to it. The fingerprint comprises "perceptual characteristics" ("signal characteristic parameters") that accurately identify the content (are "configured to differentiate between versions of said reference signal").</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "<u>digital fingerprint-based</u>" technology to accurately identify content using audio signals. Identification is based on the <u>perceptual characteristics</u> of the audio itself which allows it to <u>accurately identify content</u> across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>

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<p>a reference database for storing abstracts of each reference signal received in a database;</p>	<p>AM’s CRT includes a database called the Global Rights Registry (“reference database”) for storing the fingerprint of the content (“abstract”).</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic’s turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution,</p>

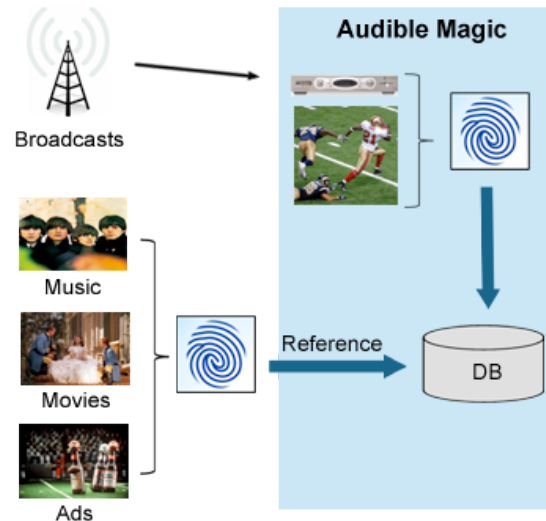
purchase link or allow advertising on user content identified by **content identification technology**.
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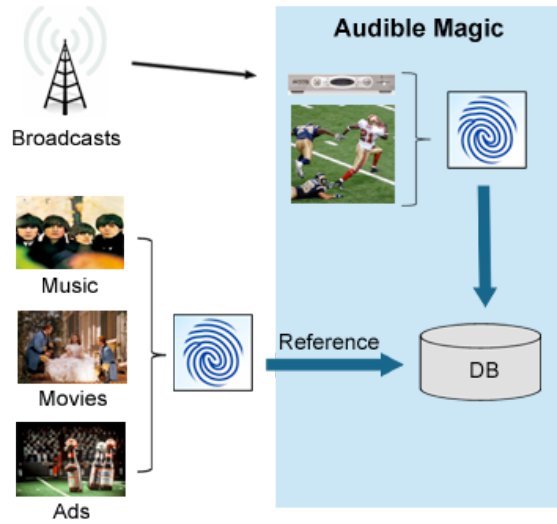
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See Exhibit 3, Audible Magic's "Broadcast Monitoring" webpage, <http://audiblemagic.com/solutions-broadcast.php> (emphasis added).

<p>a second input for receiving at least one query signal to be identified,</p>	<p>AM's CRT includes an input (it is obvious to anyone skilled in the art that an input must be used to receive the unknown content, "a second input") that receives unknown content ("at least one query signal") to be identified.</p> <p>Broadcast Monitoring</p> <p><u>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic's Automated Content Recognition (ACR) technology.</u> This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p> <p>See Exhibit 3, Audible Magic's "Broadcast Monitoring" webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a second processor for creating an abstract of the received query signal based on the parameters;</p>	<p>AM's CRT includes a processor (it is obvious to anyone skilled in the art that a processor is used to execute the technology's algorithms, "a second processor") that generates a fingerprint ("creates an abstract") from the unknown content ("query signal") based on the parameters used to create the fingerprint of the monitored content.</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "<u>digital fingerprint-based</u>" technology to accurately identify content using audio signals. Identification is based on the <u>perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques.</u> This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>

	 <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>and a comparing device for comparing an abstract of said received query signal to the abstracts stored in the database to determine if the abstract of said received query signal is related to any of the stored abstracts.</p>	<p>AM’s CRT includes a server or other computer (“a comparing device”) that compares the fingerprint created from the unknown content (“created query signal abstract”) to the fingerprints in the reference database (“the reference signal abstracts in the at least one database”) to determine if they are related.</p> <p>Broadcast Monitoring</p> <p>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic’s Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then <u>matched</u> to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p>

	<p>See Exhibit 3, Audible Magic's "Broadcast Monitoring" webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
12. The system of claim 11, wherein said database is independently accessible.	As established above, AM's CRT infringes Claim 11, and, on information and belief, the database is independently accessible. Further discovery will be needed to chart the infringing instrumentality.
13. The system of claim 11, wherein said received query signal is independently stored.	As established above, AM's CRT infringes Claim 11, and, on information and belief, the received query signal is independently stored. Further discovery will be needed to chart the infringing instrumentality.
14. The system of claim 11, wherein the parameters used by the comparing device to compare a received query signal abstract with a stored reference signal abstract are adjustable.	As established above, AM's CRT infringes Claim 11, and, on information and belief, the parameters used by the comparing device to compare a received query signal abstract with a stored reference signal abstract are adjustable. Further discovery will be needed to chart the infringing instrumentality.
15. The system of claim 11, wherein the stored abstracts comprise a self-similar representation of at least one	As established above, AM's CRT infringes Claim 11, and, on information and belief, the stored abstracts comprise a self-similar representation of at least one reference signal. Further discovery will be needed to chart the infringing instrumentality.

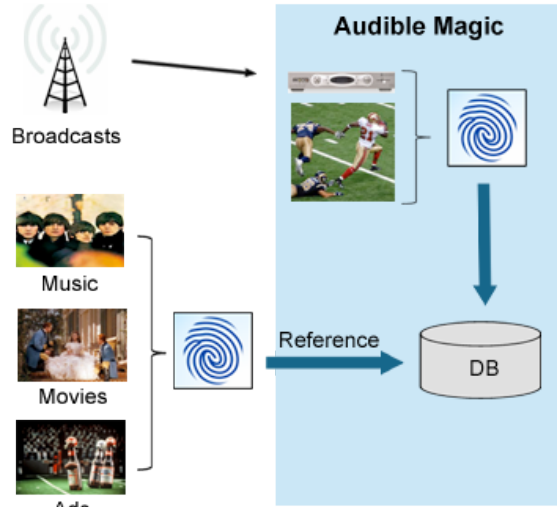
reference signal.	
16. The system of claim 11, wherein at least two of the stored abstracts comprise information corresponding to two versions of at least one reference signal.	As established above, AM's CRT infringes Claim 11, and, on information and belief, at least two of the stored abstracts comprise information corresponding to two versions of at least one reference signal. Further discovery will be needed to chart the infringing instrumentality.
17. The system of claim 11, wherein at least one abstract comprises data describing a portion of the characteristics of its associated reference signal.	<p>As established above, AM's CRT infringes Claim 1, and, on information and belief, at least one abstract comprises data describing a portion of the characteristics of its associated reference signal. Further discovery will be needed to chart the infringing instrumentality, but the following indicates infringement:</p> <p style="text-align: center;">Identification is possible with audio clips as short as 10 seconds. Identification rates are in excess of 99% with zero false positives. Transaction requests can achieve sub-second response time, enabling massive scaling, even with reference databases in excess of 1 million hours of content.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
18. The system of claim 17, wherein the characteristics of the reference signal being described comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic or combinations thereof.	<p>As established above, AM's CRT infringes Claim 17, and the characteristics of the reference signal being described comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic or combinations thereof.</p> <p style="text-align: center;">Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>

<p>19. The system of claim 11, wherein a stored abstract comprises data unique to a variation of its corresponding reference signal.</p>	<p>As established above, AM's CRT infringes Claim 11, and, on information and belief, a stored abstract comprises data unique to a variation of its corresponding reference signal. Further discovery will be needed to chart the infringing instrumentality.</p>
<p>20. The system of claim 11, wherein the system further comprises a security controller for applying a cryptographic protocol to the abstract of said reference signal, said query signal, or both said reference signal and said query signal.</p>	<p>As established above, AM's CRT infringes Claim 11, and, on information and belief, further comprises a security controller for applying a cryptographic protocol to the abstract of said reference signal, said query signal, or both. Further discovery will be needed to chart the infringing instrumentality.</p>
<p>21. The system of claim 20, wherein the cryptographic protocol is one of at least a hash or digital signature and further comprising storing the hashed abstract and/or digitally signed abstract in the reference database.</p>	<p>As established above, AM's CRT infringes Claim 20, and, on information and belief, the cryptographic protocol is one of at least a hash or digital signature and further comprising storing the hashed abstract and/or digitally signed abstract in the reference database. Further discovery will be needed to chart the infringing instrumentality.</p>
<p>22. The system of claim 11, further comprising a transmitter for distributing at least one signal based on the comparison step.</p>	<p>As established above, AM's CRT infringes Claim 11, and, on information and belief, further comprises a transmitter for distributing at least one signal based on the comparison step. Further discovery will be needed to chart the infringing instrumentality, but the following indicates infringement:</p> <p style="text-align: center;">Example of CR Using Cloud Based Fingerprinting with Smart TV and LAN Connection</p> <p>In the example pictured below, an agency has created a digital fingerprint for their specific TV commercial.</p> <ul style="list-style-type: none"> • When the fingerprint of the content playing on the screen is <u>detected</u>, a pop-up overlay dialog box is triggered on top of the advertisement asking the viewer if they want to take advantage of the coupon being offered on screen.

<p>a device configured to determine whether a query signal matches said first version of said reference signal, by comparing, [<i>sic</i>] a query signal abstract that was generated based upon perceptual characteristics of said query signal, with said first version abstract stored in said reference database.</p>	<p>AM's CRT includes a server or other computer ("a device") configured to compare a fingerprint of the unknown content ("query signal abstract," generated based upon perceptual characteristics of said query signal) to the fingerprint stored in the reference database ("first version abstract stored in said reference database") to determine if they match.</p> <p>Broadcast Monitoring</p> <p>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic's Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then <u>matched</u> to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p> <p>See Exhibit 3, Audible Magic's "Broadcast Monitoring" webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to <u>accurately identify content</u> using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic's "Technology Overview" webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
<p>29. A system for determining whether a query signal matches any of a plurality of reference</p>	<p>Audible Magic's content recognition technology ("AM's CRT")—found, on information and belief, in its SmartID, CopySense Appliance, CopySense Custom, CopySense Premier, Live TViD, Music-Speech iD, SmartSync, and RepliCheck products and solutions—is a software- and computer-based solution ("system") for determining whether</p>

signal [<i>sic</i>], comprising:	<p>unknown content (“a query signal”) matches known content in a database (“any of a plurality of reference signal[s]”). .</p> <p>About Audible Magic</p> <p>Our mission is to deliver the most trusted and accurate <u>content identification technology and solution services on the market.</u></p> <p>As the industry pioneer, Audible Magic is recognized as the de facto leader in monetizing, protecting, measuring, and verifying content — in all their forms, including radio and television broadcasts, Internet and satellite streams, stored digital files, consumer devices and via network file transfers.</p> <p>Innovative and massively scalable, Audible Magic's patented "fingerprinting" technology accurately tracks and monitors the detection of copyrighted material or any other audio or video-based content. Coupled with our unique and dynamic database of more than 11 million digital fingerprints, Audible Magic's CopySense® products and technology provide copyright-sensitive identification that weeds out the noise and yields highly accurate tracking of your copyrighted content.</p> <p>Our technology has paved the way for a wide - and growing - range of solutions in media identification and ad detection, compliance, monetization and management, anti-piracy, content registration, and litigation support. And each year, more customers recognize Audible Magic as a brand they can trust.</p> <p>See Exhibit 1, Audible Magic’s “About” webpage, http://audiblemagic.com/company.php (emphasis added).</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to <u>Audible Magic’s</u> turnkey compliance and filtering solutions for <u>highly accurate, automated copyright recognition (ACR)</u> to help eliminate risk and respect copyrighted works. Recognize master recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible</p>
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	<p>Magic. This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content. Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by content identification technology. Add our metadata to enhance the user experience.</p> <p>See Exhibit 2, Audible Magic’s “Copyright Compliance” webpage, http://audiblemagic.com/solutions-maincompliance.php (emphasis added).</p> <p>Broadcast Monitoring</p> <p><u>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic’s Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</u></p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property</p> <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a first processor configured to create a plurality of reference signal abstracts for each one of a plurality of reference signals, wherein each one of said plurality of reference signal abstracts comprises signal characteristic parameters configured to differentiate between other versions of that one of said plurality of</p>	<p>AM’s CRT includes a processor (it is obvious to anyone skilled in the art that a processor is used to execute the technology’s algorithms, “a first processor”) configured to generate fingerprints (“reference signal abstracts”) from content (“a plurality of reference signals”), wherein each fingerprint comprises “perceptual characteristics” (“signal characteristic parameters”) that accurately identify the content (are “configured to differentiate between other versions of that one of said plurality of reference signals”).</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic’s patented SmartID and CopySense automated content recognition (ACR) uses “digital fingerprint-based” technology to accurately identify content using audio signals. Identification is based on the <u>perceptual characteristics</u> of the audio itself which allows it to</p>

<p>reference signals;</p>	<p><u>accurately identify content across file formats, codecs, bitrates, and compression techniques.</u> This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p>See Exhibit 4, Audible Magic’s “Technology Overview” webpage, http://audiblemagic.com/technology.php (emphasis added).</p>  <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a reference database storing said plurality of reference signal abstracts;</p>	<p>AM’s CRT includes a database called the Global Rights Registry (“a reference database”) for storing the fingerprints of the content (“said plurality of reference signal abstracts”).</p> <p>User Generated Content Services</p> <p>Respecting copyrights for music, movies and televisions is a big deal. Copyright owners are more willing to license content and help you monetize your services when you implemented programs that respect copyrights. It also helps minimize legal problems.</p> <p>Turn to Audible Magic’s turnkey compliance and filtering solutions for highly accurate, automated copyright recognition (ACR) to help eliminate risk and respect copyrighted works. Recognize master</p>

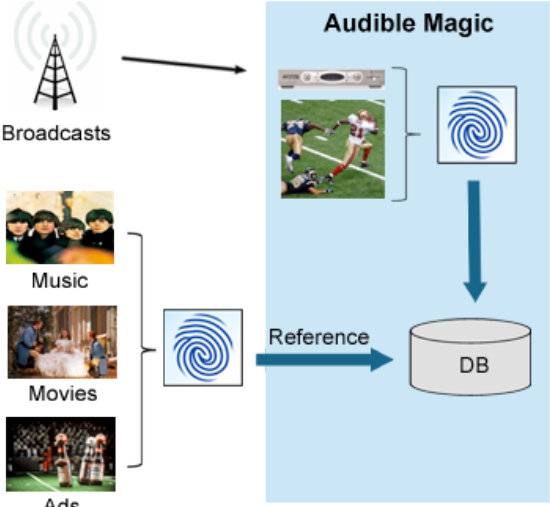
recordings of major music and indie record labels as well as movie and television studios using our digital fingerprinting technology. Copyright owners, such as music labels and movie and TV studios register their content they want protected directly with Audible Magic. **This content is included in our Global Rights Registry™ that contains more than 12 million fingerprints, and represents over 900,000 hours of copyrighted songs, movies, television shows, and other video content.** Audible Magic services are often the prerequisite for licensing content. Enable content substitution, purchase link or allow advertising on user content identified by **content identification technology**. Add our metadata to enhance the user experience.

See Exhibit 2, Audible Magic's "Copyright Compliance" webpage, <http://audiblemagic.com/solutions-maincompliance.php> (emphasis added).

Broadcast Monitoring

Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic's Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.

The fingerprint technology uses very fast and fine-grained measurements of the content, which is then matched to **a reference database of fingerprints** to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the rights of your intellectual property.

	 <p>See Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p>
<p>a device configured to determine if a query signal matches any one plurality of reference signals by comparing a query signal abstract of said query signal with at least one abstract of said plurality of reference signal abstracts stored in said reference database.</p>	<p>AM’s CRT includes a server or other computer (“a device”) configured to determine if a piece of unknown content (“a query signal”) matches the known content (“any one plurality of reference signals”) by comparing a fingerprint of the unknown content (“a query signal abstract of said query signal”) with the fingerprints of the known content (“at least one abstract of said plurality of reference signal abstracts stored in said reference database”).</p> <p>Broadcast Monitoring</p> <p>Detect music or advertising content as it is broadcast over radio, television, cable and satellite using Audible Magic’s Automated Content Recognition (ACR) technology. This perceptual digital fingerprinting technology enables news studios, sport organizations, TV syndications and advertisers to determine precisely when, where and how their content is being used.</p> <p>The fingerprint technology uses very fast and fine-grained measurements of the content, which is then <u>matched</u> to a reference database of fingerprints to quickly identify the content as it is being broadcast. This gives you the ability to quickly measure the effectiveness of your advertising, confirm market penetration by comparing different forms of broadcast medium, and manage the</p>

	<p>rights of your intellectual property</p> <p><i>See</i> Exhibit 3, Audible Magic’s “Broadcast Monitoring” webpage, http://audiblemagic.com/solutions-broadcast.php (emphasis added).</p> <p>Robust SmartID and CopySense Technology</p> <p>Audible Magic's patented SmartID and CopySense automated content recognition (ACR) uses "digital fingerprint-based" technology to accurately identify content using audio signals. Identification is based on the perceptual characteristics of the audio itself which allows it to accurately identify content across file formats, codecs, bitrates, and compression techniques. This approach is highly accurate and requires no dependence on metadata, watermarks or file hashes. It is also immune to many typical transformations.</p> <p><i>See</i> Exhibit 4, Audible Magic’s “Technology Overview” webpage, http://audiblemagic.com/technology.php (emphasis added).</p>
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